

1 Features

- Outdoor units for pair, twin, triple, double twin application
- The Sky Air Inverter is developed for use in shops, restaurants and small offices. This innovative Daikin unit provides a more comfortable environment and offers great savings in energy consumption to shop and office owners.
- The use of inverter type outdoor units results in an air conditioning system with a high energy efficiency and very low sound level
- An inverter driven compressor allows the capacity to be adjusted precisely to match variations in room and outside temperatures.
- During start up, the room can be cooled down or heated very quickly. Once the temperature in the room has reached its set point, the low power operation starts to save energy.
- Daikin outdoor units are neat and sturdy and can be mounted easily on a roof or terrace or simply placed against an outside wall.
- Outdoor units are fitted with either a swing or scroll compressor, renowned for low noise and high energy efficiency
- A special acryl precoated fin for anti-corrosion treatment on the heat exchanger ensures greater resistance against severe weather conditions



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2 Specifications

2-1 NOMINAL CAPACITY AND NOMINAL INPUT				RZQS71B7V3B	RZQS100B7V3B	
For combination indoor units + outdoor units	Indoor Units			FCQ71C7VEB	FCQ100C7VEB	
Cooling capacity	Standard	kW		7.10	10.00	
Heating capacity	Standard	kW		8.00	11.20	
Power Input	Cooling	Standard	kW	2.46	3.83	
	Heating	Standard	kW	2.61	3.47	
For combination indoor units + outdoor units	EER	Nominal		2.89	2.61	
	COP	Nominal		3.07	3.23	
	Energy Label	Cooling			C	D
		Heating			D	C
	Annual energy consumption	kWh		1230	1915	
Indoor Units				FBQ71B8V3B	FBQ100B8V3B	
Cooling capacity	Standard	kW		7.10	10.00	
Heating capacity	Standard	kW		8.00	11.20	
Power Input	Cooling	Standard	kW	2.52	3.83	
	Heating	Standard	kW	2.40	3.47	
For combination indoor units + outdoor units	EER	Nominal		2.82	2.61	
	COP	Nominal		3.33	3.23	
	Energy Label	Cooling			C	D
		Heating			C	C
	Annual energy consumption	kWh		1260	1915	
Indoor Units				FHQ71B1V1B	FHQ100B1V1B	
Cooling capacity	Standard	kW		7.10	10.00	
Heating capacity	Standard	kW		8.00	11.20	
Power Input	Cooling	Standard	kW	2.53	4.15	
	Heating	Standard	kW	2.84	3.99	
For combination indoor units + outdoor units	EER	Nominal		2.81	2.41	
	COP	Nominal		2.82	2.81	
	Energy Label	Cooling			C	E
		Heating			D	D
	Annual energy consumption	kWh		1265	2075	
Indoor Units				FAQ71B1V1B	FAQ100B1V1B	
Cooling capacity	Standard	kW		7.10	10.00	
Heating capacity	Standard	kW		8.00	11.20	
Power Input	Cooling	Standard	kW	2.53	4.08	
	Heating	Standard	kW	2.61	3.73	
For combination indoor units + outdoor units	EER	Nominal		2.81	2.45	
	COP	Nominal		3.01	3.00	
	Energy Label	Cooling			C	E
		Heating			D	D
	Annual energy consumption	kWh		1265	2040	
Indoor Units				FCQH71C7VEB	FCQH100C7VEB	
Cooling capacity	Standard	kW		7.10	10.00	
Heating capacity	Standard	kW		8.00	11.20	
Power Input	Cooling	Standard	kW	2.36	3.56	
	Heating	Standard	kW	2.34	3.28	

2 Specifications

2-1 NOMINAL CAPACITY AND NOMINAL INPUT				RZQS71B7V3B	RZQS100B7V3B
For combination indoor units + outdoor units	EER	Nominal		3.01	2.81
	COP	Nominal		3.42	3.41
	Energy Label	Cooling		B	C
		Heating		B	
Annual energy consumption		kWh	1180	1780	

2-2 TECHNICAL SPECIFICATIONS				RZQS71B7V3B	RZQS100B7V3B	
Casing	Colour			Ivory White		
	Material			Painted galvanised steel		
Dimensions	Unit	Height	mm	770	770	
		Width	mm	900	900	
		Depth	mm	320	320	
	Packing	Height	mm	900	900	
		Width	mm	980	980	
		Depth	mm	420	420	
Weight	Unit		kg	68	68	
	Packed Unit		kg	72	72	
Heat Exchanger	Dimensions	Length	mm	857	857	
		Nr of Rows		2	2	
		Fin Pitch	mm	1.40	1.40	
		Nr of Passes		3	3	
		Face Area	m ²	0.641	0.641	
		Nr of Stages		34	34	
	Tube type			Hi-XSS(8)		
	Fin	Type		WF fin		
Treatment		Anti-corrosion treatment (PE)				
Fan	Type			Propeller		
	Discharge direction			Horizontal		
	Quantity			1	1	
	Air Flow Rate (nominal at 230V)	Cooling	m ³ /min	54.5	61.3	
		Heating	m ³ /min	48.1	61.7	
	Motor	Quantity		1	1	
Model		KFD-325-70-8A				
Motor	Speed (nominal)	Steps		8	8	
		Cooling	rpm	818	920	
		Heating	rpm	715	920	
Fan	Motor	Output	W	70	70	
Compressor	Quantity			1	1	
	Motor	Model			2YC63BXD	
		Type			Hermetically sealed swing compressor	
		Motor Output	W	1800	1800	
Operation Range	Cooling	Min	°CDB	-5.0	-5.0	
		Max	°CDB	46.0	46.0	
	Heating	Min	°CWB	-15.0	-15.0	
		Max	°CWB	15.5	15.5	
Sound Level (nominal)	Cooling	Sound Power	dBA	65.0	67.0	
		Sound Pressure	dBA	49.0	51.0	
	Heating	Sound Pressure	dBA	51.0	55.0	
Sound Level (Night quiet)	Sound Pressure		dBA	43.0	45.0	

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2 Specifications

2-2 TECHNICAL SPECIFICATIONS			RZQS71B7V3B	RZQS100B7V3B	
Refrigerant	Type		R-410A		
	Charge	kg	2.80	2.80	
	Control		Expansion valve (electronic type)		
	Nr of Circuits		1	1	
Refrigerant Oil	Type		Daphne FVC50K		
	Charged Volume	l	0.8	0.8	
Piping connections	Liquid (OD)	Quantity		1	1
		Type		Flare connection	
		Diameter (OD)	mm	9.52	9.52
	Gas	Quantity		1	1
		Type		Flare connection	
		Diameter (OD)	mm	15.9	15.9
	Drain	Quantity		3	3
		Type		Hole	
		Diameter (OD)	mm	26	26
	Piping Length	Minimum	m	5	5
		Maximum	m	30	50
		Equivalent	m	40	70
		Chargeless	m	30	30
	Additional Refrigerant Charge		kg/m	see installation manual 4PW32097-1	
	Installation height difference	Maximum	m	15	30
Max. internunit level difference		m	0.5	0.5	
Heat Insulation		Both liquid and gas pipes			
Defrost Method			Pressure equalising		
Defrost Control			Sensor for outdoor heat exchanger temperature		
Capacity Control Method			Inverter controlled		
Safety Devices			High pressure switch		
			Fan motor thermal protector		
			Fuse		
Standard Accessories	Item		Tie-wraps		
	Quantity		2	2	
	Item		Installation manual		
Quantity		1	1		
Notes			Nominal cooling capacities are based on : indoor temperature : 27°CDB, 19°CWB, outdoor temperature : 35°CDB		
			Nominal heating capacities are based on : indoor temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB		

2-3 ELECTRICAL SPECIFICATIONS			RZQS71B7V3B	RZQS100B7V3B	
Power Supply	Name		V3		
	Phase		1	1	
	Frequency	Hz	50	50	
	Voltage	V	230	230	
	Voltage range	Minimum	V	-10%	
		Maximum	V	+10%	
Current	Recommended fuses	A	20	20	
Wiring connections	For Power Supply	Remark	see installation manual 4PW32097-1		
	For connection with indoor	Remark	see installation manual 4PW32097-1		
Power Supply Intake			Outdoor unit only		
Notes			See separate drawings for electrical data		

3 Electrical data

RZQS71-100BV3

Unit combination		Power supply				Comp.		OFM		IFM		
Indoor unit	Outdoor unit	Hz-volts	Voltage range	MCA	TOCA	MFA	MSC	RLA	KW	FLA	KW	FLA
FCQH71C7VEB	RZQS71B7V3B	50-230	Max, 50Hz/253V Min, 50Hz/207V	17.0	17.0	20	16.2	16.2	0.07	0.3	0.120	0.5
FCQ71C7VEB	RZQS71B7V3B	50-230		17.0	17.0	20	16.2	16.2	0.07	0.3	0.056	0.5
FCQ35C7VEBx2	RZQS71B7V3B	50-230		17.1	17.1	20	16.2	16.2	0.07	0.3	0.056x2	0.3x2
FCQ71B8V3B	RZQS71B7V3B	50-230		17.1	17.1	20	16.2	16.2	0.07	0.3	0.045	0.6
FCQ35B8V1x2	RZQS71B7V3B	50-230		17.7	17.7	20	16.2	16.2	0.07	0.3	0.045x2	0.6x2
FFQ35BV1Bx2	RZQS71B7V3B	50-230		17.7	17.7	20	16.2	16.2	0.07	0.3	0.055x2	0.6x2
FBQ71B7V3B	RZQS71B7V3B	50-230		17.4	17.4	20	16.2	16.2	0.07	0.3	0.125	0.9
FBQ35B7V1x2	RZQS71B7V3B	50-230		17.5	17.5	20	16.2	16.2	0.07	0.3	0.065x2	0.5x2
FHQ71BUV1B	RZQS71B7V3B	50-230		17.1	17.1	20	16.2	16.2	0.07	0.3	0.062	0.6
FHQ35BUV1Bx2	RZQS71B7V3B	50-230		17.7	17.7	20	16.2	16.2	0.07	0.3	0.062x2	0.6x2
FAQ71BUV1B	RZQS71B7V3B	50-230		16.8	16.8	20	16.2	16.2	0.07	0.3	0.043	0.3
FCQH100C7VEB	RZQS100B7V3B	50-230		19.4	19.4	20	17.7	17.7	0.07	0.3	0.120	1.4
FCQ100C7VEB	RZQS100B7V3B	50-230		18.7	18.7	20	17.7	17.7	0.07	0.3	0.120	0.7
FCQ50C7VEBx2	RZQS100B7V3B	50-230		18.6	18.6	20	17.7	17.7	0.07	0.3	0.056x2	0.3x2
FCQ35C7VEBx3	RZQS100B7V3B	50-230		18.9	18.9	20	17.7	17.7	0.07	0.3	0.056x3	0.3x3
FCQ100B8V3B	RZQS100B7V3B	50-230		19.0	19.0	20	17.7	17.7	0.07	0.3	0.090	1.0
FCQ50B8V1x2	RZQS100B7V3B	50-230		19.2	19.2	20	17.7	17.7	0.07	0.3	0.045x2	0.6x2
FCQ35B8V1x3	RZQS100B7V3B	50-230		19.8	19.8	20	17.7	17.7	0.07	0.3	0.045x3	0.6x3
FFQ50BV1Bx2	RZQS100B7V3B	50-230		19.4	19.4	20	17.7	17.7	0.07	0.3	0.055x2	0.7x2
FFQ35BV1Bx3	RZQS100B7V3B	50-230		19.8	19.8	20	17.7	17.7	0.07	0.3	0.055x3	0.6x3
FBQ100B7V3B	RZQS100B7V3B	50-230	19.0	19.0	20	17.7	17.7	0.07	0.3	0.135	1.0	
FBQ50B7V1x2	RZQS100B7V3B	50-230	19.4	19.4	20	17.7	17.7	0.07	0.3	0.085x2	0.7x2	
FBQ35B7V1x3	RZQS100B7V3B	50-230	19.5	19.5	20	17.7	17.7	0.07	0.3	0.065x3	0.5x3	
FHQ100BUV1B	RZQS100B7V3B	50-230	18.7	18.7	20	17.7	17.7	0.07	0.3	0.130	0.7	
FHQ50BUV1Bx2	RZQS100B7V3B	50-230	19.2	19.2	20	17.7	17.7	0.07	0.3	0.062x2	0.6x2	
FHQ35BUV1Bx3	RZQS100B7V3B	50-230	19.8	19.8	20	17.7	17.7	0.07	0.3	0.062x3	0.6x3	
FAQ100BUV1B	RZQS100B7V3B	50-230	18.4	18.4	20	17.7	17.7	0.07	0.3	0.049	0.4	

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SYMBOLS

MCA	: Min. Circuit Amps (A)
TOCA	: Total Over Current Amps (A)
MFA	: Max. Fuse Amps (See note 7) (A)
MSC	: MSC means the max. current during the starting of compressor. (A)
RLA	: Rated Load Amps (A)
OFM	: Outdoor Fan Motor (A)
IFM	: Indoor Fan Motor
FLA	: Full Load Amps
KW	: Fan Motor Rated Output (kW)

NOTES

- RLA is based on the following conditions:
Power supply: 50Hz/230V
Cooling
Indoor temperature 27°CDB/19°CWB
Outdoor temperature 35°CDB
Heating
Indoor temperature 20.0°CDB
Outdoor temperature 7.0°CDB/6.0°CWB
- TOCA means the total value of each OC set
- Voltage range
Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above listed operation range limits
- Maximum allowable voltage unbalance between phases is 2%
- MCA represents maximum input current, MFA represents capacity which may accept MCA (next lower standard fuse rating, min.15A)
- Select wire size based on the larger value of MCA or TOCA
- MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker)
- For more details concerning conditional connections, see <http://extranet.daikin-europe.com>, select "E-Data Books". Finally, click on the document title of your choice.

4 Options

Available option for RZQS71-100B7V3

Name of option		Kit name	
		RZQS71B7V3B	RZQS100B7V3B
Central drain plug		KKPJ5F180	
Refrigerant branch piping	Twin	KHRQ22M20TA	
	Triple	-	KHRQ127H
	Double twin	-	-
Demand adapter kit		KRP58M51	

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5 Capacity tables

5 - 1 Combination table

Possible combinations and standard capacity for twin, triple and double twin application

Outdoor models	Possible indoor combination		
	Simultaneous operation		
	Twin	Triple	Double twin
RZQS71B7V3	35-35 (KHRQ22M20TA7)		
RZQS100B7V3	50-50 (KHRQ22M20TA7)	35-35-35 (KHRQ127H7)	

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NOTES

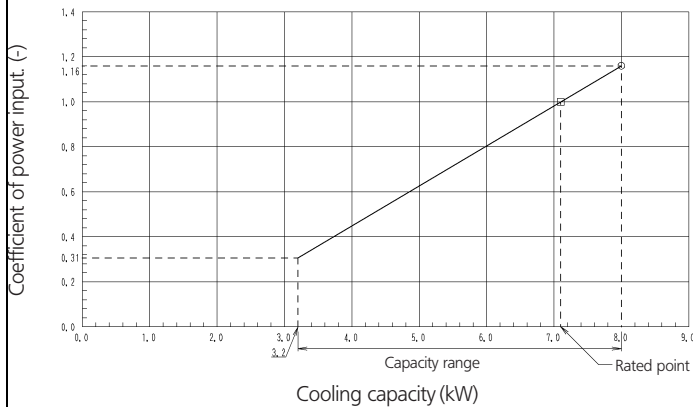
- 1 Possible indoor units: FCQ35-125B, FFQ35-60BV, FHQ35-125B, FBQ35-125B, FAQ71-100B, FDQ125B.
- 2 Individual indoor capacities are not given because the combinations are for simultaneous operation (=indoor units installed in same room).
- 3 When different indoor models are used in combination, designate the infrared remote controller that is equipped with the most functions as the main unit.
In note 1 are the indoor units mentioned in order of the possible function (most functions are on FCQ, less functions are on FAQ).
- 4 Between brackets are the required Refnet kits mentioned, that are necessary to install the combination.

5 Capacity tables

5 - 2 Cooling capacity tables

RZQS71BV3 (Pair + Multi)

Cooling



Cooling capacity 230V [50Hz]

Indoor		Outdoor temp. (°CDB)											
EWB (°C)	EDB (°C)	25			30			35			40		
		TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)
16.0	22	6.47	4.39	0.76	6.46	4.43	0.89	6.66	4.62	0.99	6.39	4.49	1.09
18.0	25	7.43	4.82	0.83	7.20	4.72	0.91	6.95	4.61	1.00	6.67	4.47	1.10
19.0	27	7.58	4.80	0.84	7.35	4.71	0.91	7.10	4.60	1.00	6.82	4.46	1.10
19.5	27	7.66	4.79	0.84	7.43	4.70	0.91	7.17	4.59	1.00	6.89	4.46	1.10
22.0	30	8.05	4.73	0.85	7.81	4.64	0.92	7.55	4.54	1.01	7.26	4.41	1.11
24.0	32	8.37	4.66	0.85	8.12	4.58	0.93	7.85	4.48	1.02	7.55	4.35	1.12

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NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat.
- On the figure the mark ○ show the max. at standard conditions.
On the figure the mark □ show rated capacity and rated coefficient of power input. However the max. capacity is not guaranteed, except at standard condition.
- On the tables □ show rated capacity and rated coefficient of power input.
- SHC is based on each EWB and EDB
 $SHC^* = SHC \text{ correction for other dry bulb}$
 $SHC^* = 0.02 \times AFR (m^3/min.) \times (1-BF) \times (DB^*-EDB)$
 Add SHC* to SHC.
- Capacities are based on following conditions:
 Outdoor air : 85 % RH, however, the condition on nominal capacity is 7° CDB/6° CWB (heating)
 Corresponding refrigerant piping length : 5 m
 Level difference : 0 m
- Coefficient of power input is the percentage when the rated valve is defined as 1.00.
- The value contains less than 5% error according to indoor unit type.
- Heating capacity include the drop of frost formation.
- Air flow rate and BF are tabulated below.
(Pair)

Model	FCQH71C	FCQ71C	FCQ71B	FBQ71B	FHQ71B	FAQ71B
AFR	20	15.5	18	19	17	19
(BF)	(0.17)	(0.19)	(0.10)	(0.11)	(0.10)	(0.08)

- Rated power input of each model is tabulated below.
(Pair)

Model	FCQH71C	FCQ71C	FCQ71B	FBQ71B	FHQ71B	FAQ71B
Cooling	2.36	2.46	2.46	2.52	2.53	2.53
Heating	2.34	2.61	2.61	2.40	2.85	2.61

SYMBOLS

AFR:	Air flow rate	(m ³ /min)
BF:	Bypass factor	
EWB:	Entering wet bulb temp.	(°CWB)
EDB:	Entering dry bulb temp.	(°CDB)
TC:	Total cooling/heating capacity	(kW)
SHC:	Sensible heating capacity	(kW)
PI:	Power input (comp.+indoor+outdoor fan motor)	(kW)
CPI:	Coefficient of power input.	(-)

Caution:
TC and SHC are shown by kW

(Multi)

Model	FCQ35Cx2	FCQ35Bx2	FFQ35Bx2	FBQ35Bx2	FHQ35Bx2
AFR	10.5x2	14x2	10x2	11.5x2	13x2
(BF)	(0.28x2)	(0.16x2)	(0.25x2)	(0.15x2)	(0.2x2)

(Multi)

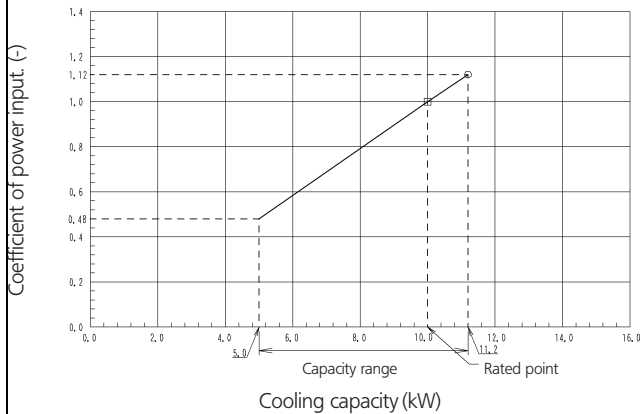
Model	FCQ35Cx2	FCQ35Bx2	FFQ35Bx2	FBQ35Bx2	FHQ35Bx2
Cooling	2.59	2.59	2.61	2.57	2.66
Heating	2.75	2.75	2.70	2.47	2.85

5 Capacity tables

5 - 2 Cooling capacity tables

RZQS100BV3 (Pair + Twin/triple)

Cooling



Cooling capacity

400V [50Hz]

Indoor		Outdoor temp. (°CDB)											
EWB (°C)	EDB (°C)	25			30			35			40		
		TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)	TC (kW)	SHC (kW)	CPI (-)
16.0	22	9.12	6.19	0.76	9.10	6.25	0.89	9.38	6.51	0.99	9.00	6.32	1.09
18.0	25	10.5	6.78	0.83	10.1	6.65	0.91	9.79	6.49	1.00	9.40	6.30	1.10
19.0	27	10.7	6.76	0.84	10.4	6.63	0.91	10.0	6.48	1.00	9.60	6.29	1.10
19.5	27	10.8	6.75	0.84	10.5	6.62	0.91	10.1	6.47	1.00	9.71	6.28	1.10
22.0	30	11.3	6.66	0.85	11.0	6.54	0.92	10.6	6.39	1.01	10.2	6.21	1.11
24.0	32	11.8	6.57	0.85	11.4	6.45	0.93	11.1	6.30	1.02	10.6	6.13	1.12

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NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat
- On the figure the mark ○ show the max. at standard conditions.
On the figure the mark □ show rated capacity and rated coefficient of power input. However the max. capacity is not guaranteed, except at standard condition.
- On the tables □ show rated capacity and rated coefficient of power input.
- SHC is based on each EWB and EDB
SHC* = SHC correction for other dry bulb
SHC* = 0.02 x AFR (m³/min.) x (1-BF) x (DB*-EDB)
Add SHC* to SHC.
- Capacities are based on following conditions:
Outdoor air : 85 % RH. however, the condition on nominal capacity is 7° CDB/6° CWB (heating)
Corresponding refrigerant piping length : 5 m
Level difference : 0 m
- Coefficient of power input is the percentage when the rated valve is defined as 1.00.
- The value contains less than 5% error according to indoor unit type.
- Heating capacity include the drop of frost formation.
- Air flow rate and BF are tabulated below.

SYMBOLS

AFR:	Air flow rate	(m ³ /min)
BF:	Bypass factor	
EWB:	Entering wet bulb temp.	(°CWB)
EDB:	Entering dry bulb temp.	(°CDB)
TC:	Total cooling/heating capacity	(kW)
SHC:	Sensible heating capacity	(kW)
PI:	Power input	(kW)
	(comp.+indoor+outdoor fan motor)	
CPI:	Coefficient of power input	(-)

Caution:
TC and SHC are shown by kW

(Pair)

Model	FCQH100C	FCQ100C	FCQ100B	FBQ100B	FHQ100B	FAQ100B
AFR	32.5	23.5	28	27	24	23
(BF)	(0.17)	(0.16)	(0.16)	(0.20)	(0.14)	(0.10)

(Twin)

Model	FCQ50Cx2	FCQ50Bx2	FFQ50Bx2	FBQ50Bx2	FHQ50Bx2
AFR	12.5x2	15x2	12x2	14x2	13x2
(BF)	(0.21x2)	(0.16x2)	(0.16x2)	(0.15x2)	(0.1x2)

(Triple)

Model	FCQ35Cx3	FCQ35Bx3	FFQ35x2	FBQ35x3	FHQ35x3
AFR	10.5x3	14x3	10x3	11.5x3	13x3
(BF)	(0.28x3)	(0.16x3)	(0.25x3)	(0.15x3)	(0.2x3)

10. Rated power input of each model is tabulated below.

(Pair)

Model	FCQH100C	FCQ100C	FCQ100B	FBQ100B	FHQ100B	FAQ100B
Cooling	3.56	3.83	3.83	3.83	4.15	4.08
Heating	3.28	3.47	3.47	3.47	3.99	3.73

(Twin)

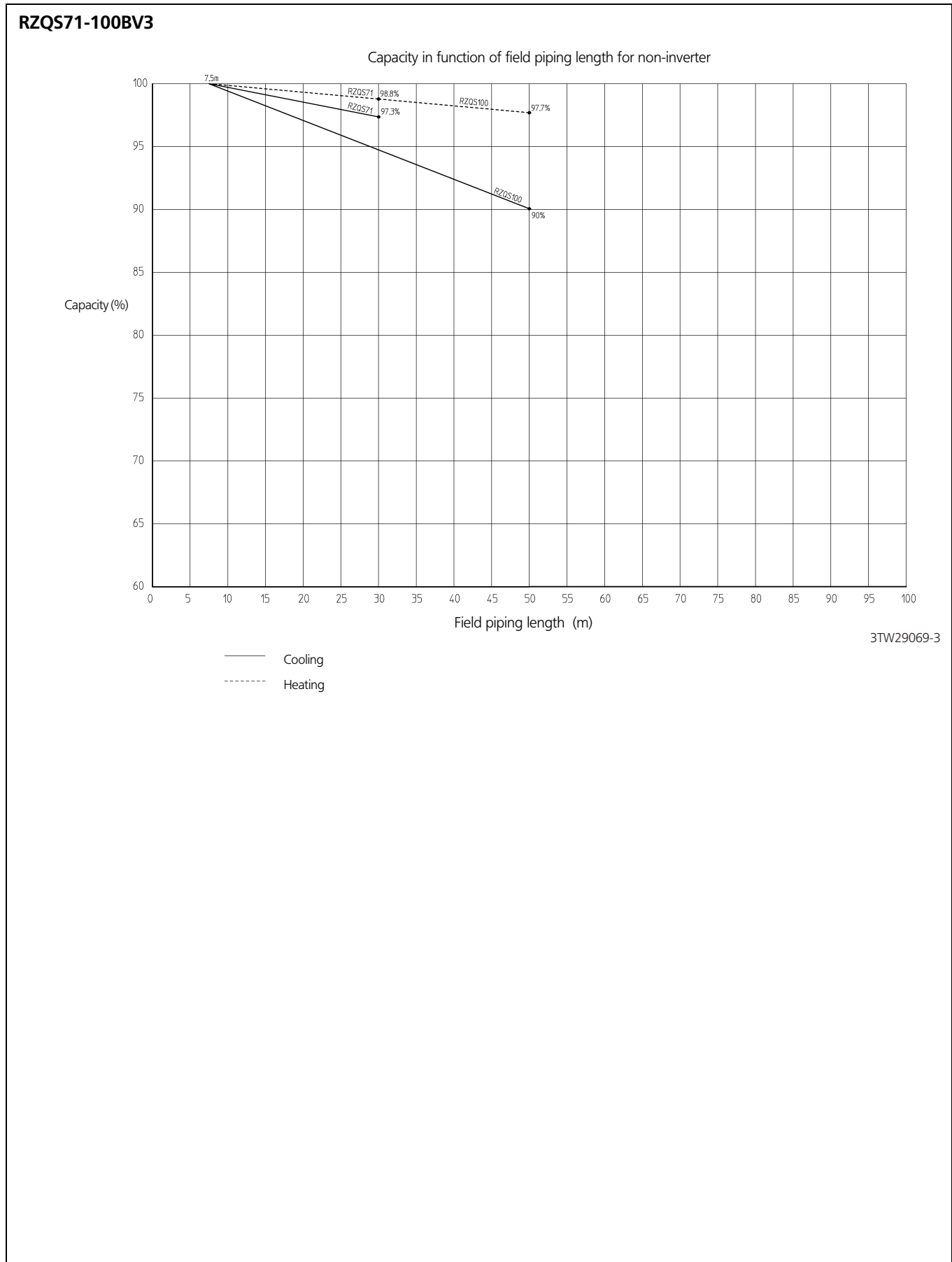
Model	FCQ50Cx2	FCQ50Bx2	FFQ50Bx2	FBQ50Bx2	FHQ50Bx2
Cooling	3.83	3.83	3.83	3.83	4.15
Heating	3.65	3.65	3.54	3.58	3.99

(Triple)

Model	FCQ35Cx3	FCQ35Bx3	FFQ35Bx3	FBQ35Bx3	FHQ35Bx3
Cooling	3.83	3.83	3.83	3.83	4.15
Heating	3.65	3.65	3.54	3.58	3.99

5 Capacity tables

5 - 2 Cooling capacity tables

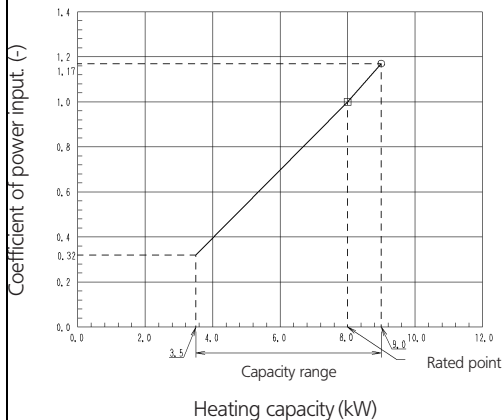


5 Capacity tables

5 - 3 Heating capacity tables

RZQS71BV3 (Pair + Multi)

Heating



Heating capacity

230V [50Hz]

Indoor EDB (°C)	Outdoor temp. (°CWB)									
	-10		-5		0		6		10	
	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (kW)	CPI (-)
16.0	5.68	1.12	6.22	1.17	6.75	1.23	8.02	0.92	8.64	0.97
18.0	5.67	1.16	6.21	1.22	6.74	1.28	8.01	0.96	8.62	1.01
20.0	5.67	1.21	6.20	1.27	6.74	1.33	8.00	1.00	8.61	1.05
21.0	5.66	1.23	6.20	1.29	6.73	1.35	8.00	1.02	8.61	1.07
22.0	5.66	1.25	6.19	1.32	6.73	1.38	7.99	1.04	8.60	1.09
24.0	5.65	1.30	6.19	1.36	6.72	1.43	7.98	1.08	8.59	1.13

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NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat
- On the figure the mark ○ show the max. at standard conditions.
On the figure the mark □ show rated capacity and rated coefficient of power input.
However the max. capacity is not guaranteed, except at standard condition.
- On the tables □ show rated capacity and rated coefficient of power input.
- SHC is based on each EWB and EDB
 $SHC^* = SHC \text{ correction for other dry bulb}$
 $SHC^* = 0.02 \times AFR (m^3/min.) \times (1-BF) \times (DB^*-EDB)$
 Add SHC* to SHC.
- Capacities are based on following conditions:
 Outdoor air : 85 % RH. however, the condition on nominal capacity is 7°C CDB/6°C CWB (heating)
 Corresponding refrigerant piping length : 5 m
 Level difference : 0 m
- Coefficient of power input is the percentage when the rated valve is defined as 1.00.
- The value contains less than 5% error according to indoor unit type.
- Heating capacity include the drop of frost formation.
- Air flow rate and BF are tabulated below.
(Pair)

Model	FCQH71C	FCQ71C	FCQ71B	FBQ71B	FHQ71B	FAQ71B
AFR	20	15.5	18	19	17	19
(BF)	(0.17)	(0.19)	(0.10)	(0.11)	(0.10)	(0.08)

- Rated power input of each model is tabulated below.
(Pair)

Model	FCQH71C	FCQ71C	FCQ71B	FBQ71B	FHQ71B	FAQ71B
Cooling	2.36	2.46	2.46	2.52	2.53	2.53
Heating	2.34	2.61	2.61	2.40	2.85	2.61

SYMBOLS

AFR:	Air flow rate	(m ³ /min)
BF:	Bypass factor	
EWB:	Entering wet bulb temp.	(°CWB)
EDB:	Entering dry bulb temp.	(°CDB)
TC:	Total cooling/heating capacity	(kW)
SHC:	Sensible heating capacity	(kW)
PI:	Power input	(kW)
	(comp.+indoor+outdoor fan motor)	
CPI:	Coefficient of power input.	(-)

Caution:
TC and SHC are shown by kW

(Multi)

Model	FCQ35Cx2	FCQ35Bx2	FFQ35Bx2	FBQ35Bx2	FHQ35Bx2
AFR	10.5x2	14x2	10x2	11.5x2	13x2
(BF)	(0.28x2)	(0.16x2)	(0.25x2)	(0.15x2)	(0.2x2)

(Multi)

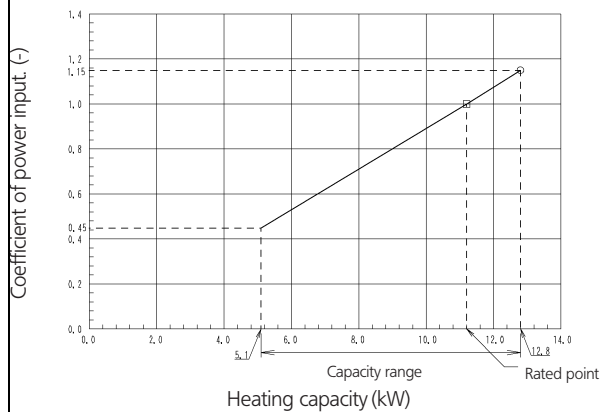
Model	FCQ35Cx2	FCQ35Bx2	FFQ35Bx2	FBQ35Bx2	FHQ35Bx2
Cooling	2.59	2.59	2.61	2.57	2.66
Heating	2.75	2.75	2.70	2.47	2.85

5 Capacity tables

5 - 3 Heating capacity tables

RZQS100BV3 (Pair + Twin/triple)

Heating



Heating capacity 400V [50Hz]

Indoor EDB (°C)	Outdoor temp. (°CWB)									
	-10		-5		0		6		10	
	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (kW)	CPI (-)	TC (kW)	CPI (-)
16.0	7.91	1.07	8.66	1.12	9.41	1.17	11.2	0.92	12.1	0.97
18.0	7.90	1.11	8.65	1.16	9.39	1.22	11.2	0.96	12.1	1.01
20.0	7.89	1.15	8.64	1.21	9.38	1.27	11.2	1.00	12.1	1.05
21.0	7.89	1.17	8.63	1.23	9.38	1.29	11.2	1.02	12.1	1.07
22.0	7.88	1.20	8.63	1.26	9.37	1.32	11.2	1.04	12.0	1.09
24.0	7.87	1.24	8.62	1.30	9.36	1.36	11.2	1.08	12.0	1.13

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NOTES

- Ratings shown are net capacities which include a deduction for indoor fan motor heat
- On the figure the mark ○ show the max. at standard conditions.
On the figure the mark □ show rated capacity and rated coefficient of power input.
However the max. capacity is not guaranteed, except at standard condition.
- On the tables □ show rated capacity and rated coefficient of power input.
- SHC is based on each EWB and EDB
SHC* = SHC correction for other dry bulb
SHC* = 0.02 × AFR (m³/min.) × (1-BF) × (DB*-EDB)
Add SHC* to SHC.
- Capacities are based on following conditions:
Outdoor air : 85 % RH. however, the condition on nominal capacity is 7° CDB/6° CWB (heating)
Corresponding refrigerant piping length : 5 m
Level difference : 0 m
- Coefficient of power input is the percentage when the rated valve is defined as 1.00.
- The value contains less than 5% error according to indoor unit type.
- Heating capacity include the drop of frost formation.
- Air flow rate and BF are tabulated below.

SYMBOLS

AFR:	Air flow rate	(m ³ /min)
BF:	Bypass factor	
EWB:	Entering wet bulb temp.	(°CWB)
EDB:	Entering dry bulb temp.	(°CDB)
TC:	Total cooling/heating capacity	(kW)
SHC:	Sensible heating capacity	(kW)
PI:	Power input	(kW)
	(comp.+indoor+outdoor fan motor)	
CPI:	Coefficient of power input.	(-)

Caution:
TC and SHC are shown by kW

(Pair)

Model	FCQH100C	FCQ100C	FCQ100B	FBQ100B	FHQ100B	FAQ100B
AFR	32.5	23.5	28	27	24	23
(BF)	(0.17)	(0.16)	(0.16)	(0.20)	(0.14)	(0.10)

(Triple)

Model	FCQ35Cx3	FCQ35Bx3	FFQ35x2	FBQ35x3	FHQ35x3
AFR	10.5x3	14x3	10x3	11.5x3	13x3
(BF)	(0.28x3)	(0.16x3)	(0.25x3)	(0.15x3)	(0.2x3)

- Rated power input of each model is tabulated below.

(Pair)

Model	FCQH100C	FCQ100C	FCQ100B	FBQ100B	FHQ100B	FAQ100B
Cooling	3.56	3.83	3.83	3.83	4.15	4.08
Heating	3.28	3.47	3.47	3.47	3.99	3.73

(Triple)

Model	FCQ35Cx3	FCQ35Bx3	FFQ35Bx3	FBQ35Bx3	FHQ35Bx3
Cooling	3.83	3.83	3.83	3.83	4.15
Heating	3.65	3.65	3.54	3.58	3.99

(Twin)

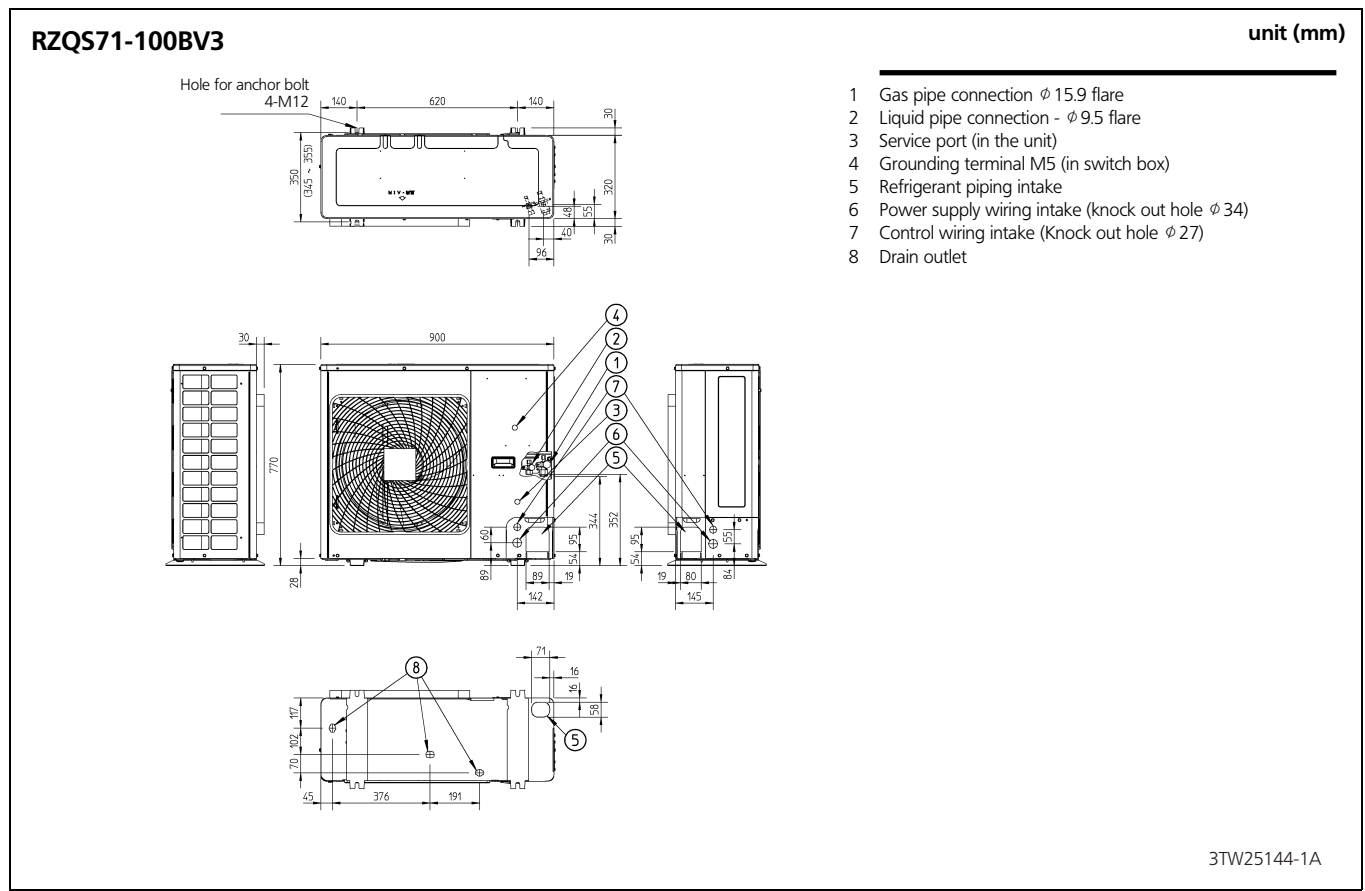
Model	FCQ50Cx2	FCQ50Bx2	FFQ50Bx2	FBQ50Bx2	FHQ50Bx2
AFR	12.5x2	15x2	12x2	14x2	13x2
(BF)	(0.21x2)	(0.16x2)	(0.16x2)	(0.15x2)	(0.1x2)

(Twin)

Model	FCQ50Cx2	FCQ50Bx2	FFQ50Bx2	FBQ50Bx2	FHQ50Bx2
Cooling	3.83	3.83	3.83	3.83	4.15
Heating	3.65	3.65	3.54	3.58	3.99

6 Dimensional drawing & centre of gravity

6 - 1 Dimensional drawing

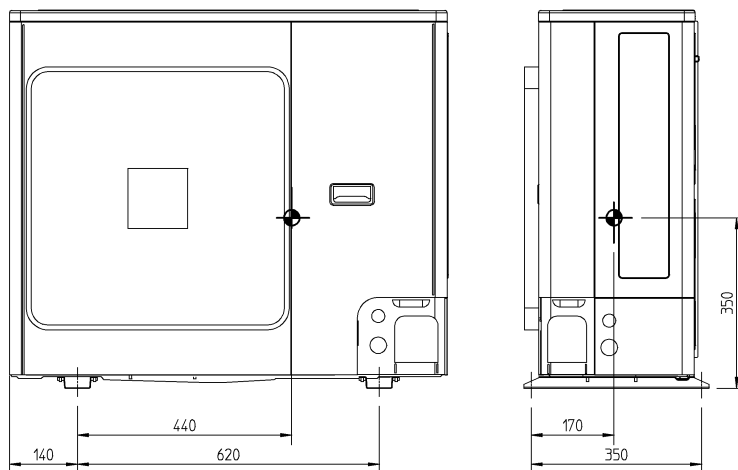


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6 Dimensional drawing & centre of gravity

6 - 2 Centre of gravity

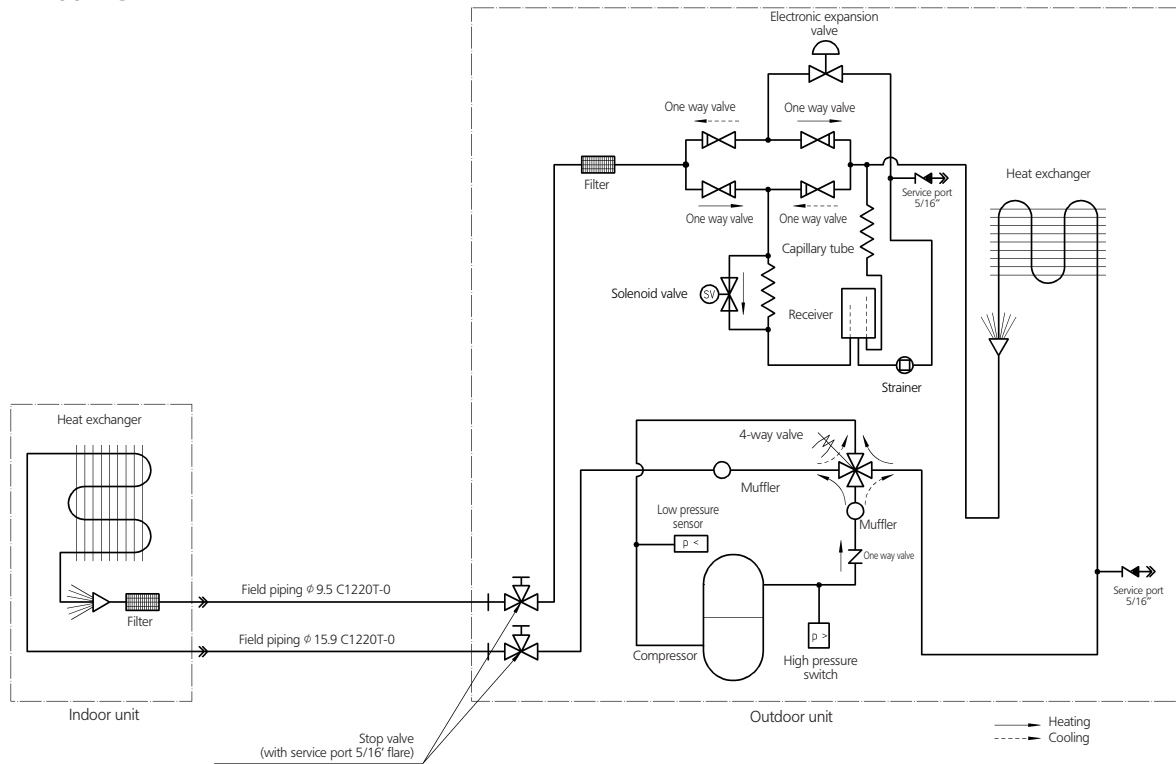
RZQS71-100BV3



4TW26069-3

7 Piping diagram

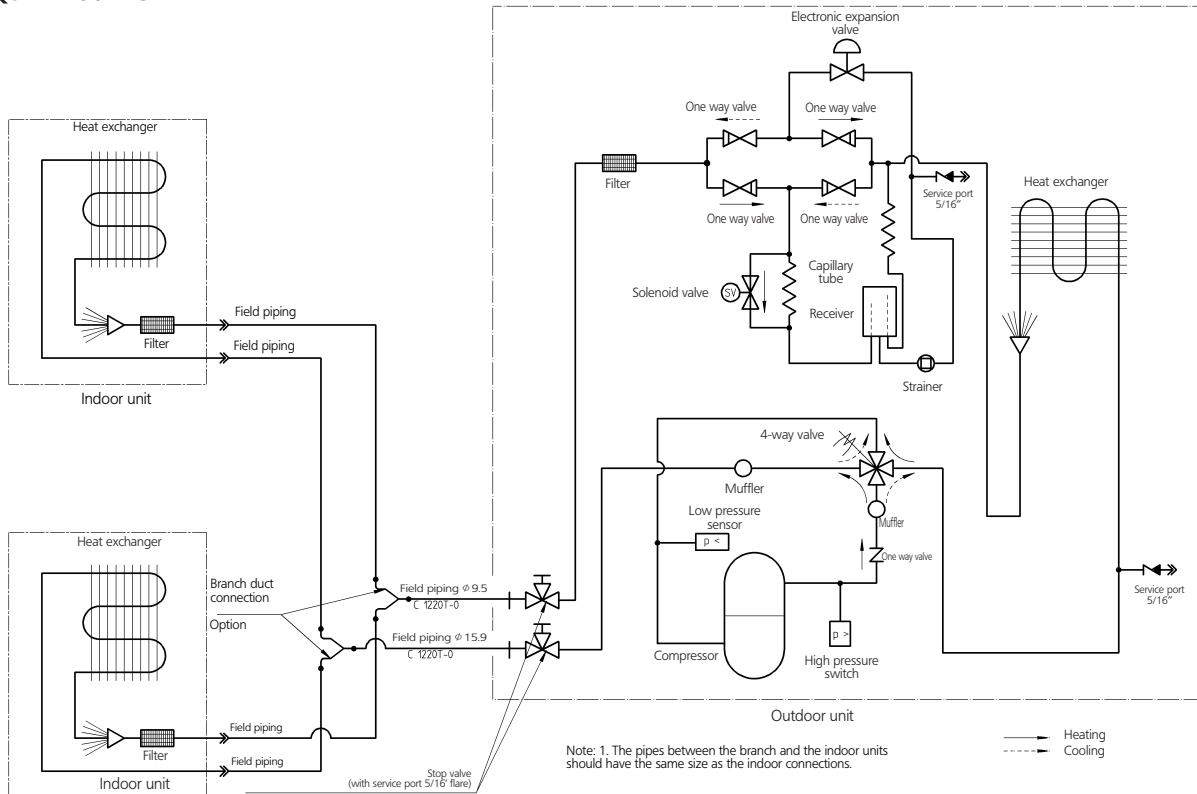
RZQS71-100BV3



Check valve
 Flare connection
 Screw connection
 Flange connection
 Pinched pipe
 Spinned pipe

3TW26735-1

RZQS71-100BV3



Note: 1. The pipes between the branch and the indoor units should have the same size as the indoor connections.

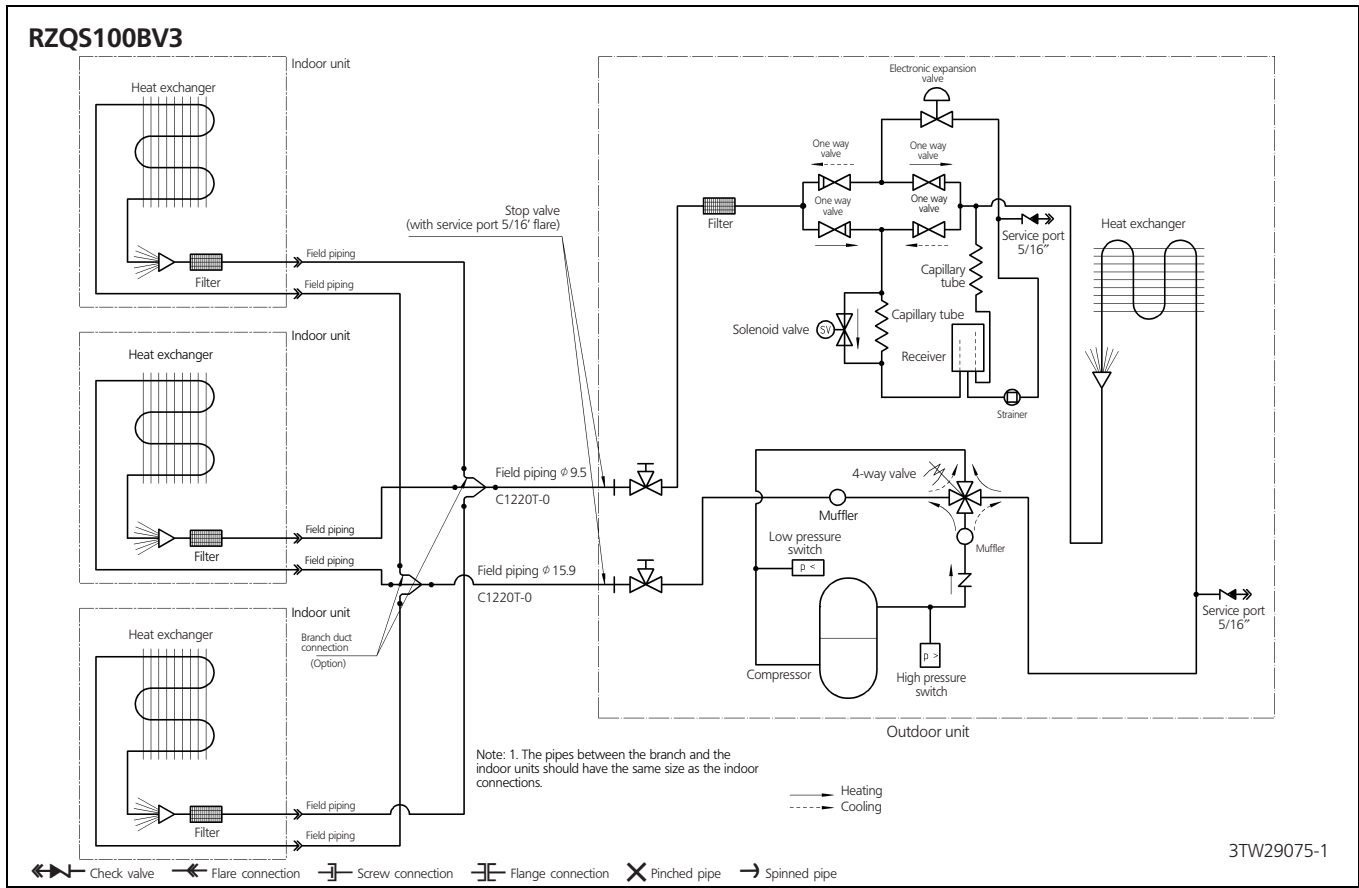
Check valve
 Flare connection
 Screw connection
 Flange connection
 Pinched pipe
 Spinned pipe

3TW26735-2

50

7

7 Piping diagram



8 Wiring diagram

8 - 1 Wiring diagram

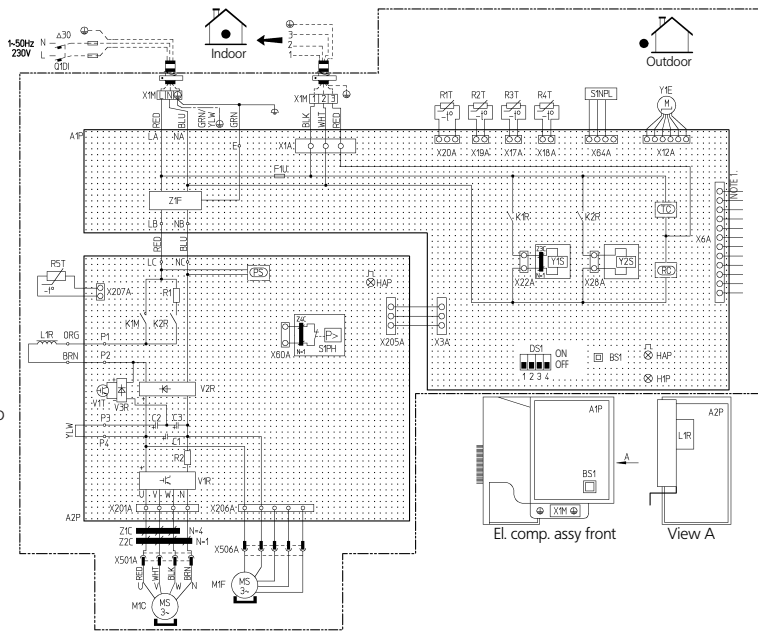
RZQS71-100BV3

- L : Live
- N : Neutral
- - - : Field wiring
- ⊕ : Protective earth (screw)
- ⊕ : Wire clamp
- : Terminal
- ⊞ : Connector
- ⤴ : Relay connector

Colours
 BLK: Black / ORG: Orange / BLU: Blue /
 WHT: White / RED: Red / YLW: Yellow /
 BRN: Brown / GRN: Green

NOTES:

1. Refer to the optional manual, for connection wiring to X6A.
2. Confirm the method of setting the selector switches (DS1) by service manual. When the unit is shipped by factory all switches are set to be off.



A1P	Printed circuit board
A2P	Printed circuit board (INV)
BS1	Push button switch (forced def. / pump down)
C1-C2-C3	Capacitor
DS1	Dip switch
F1U	Fuse (T6, 3A/250V)
HAP (A1P)	Light emitting diode (service monitor green)
HAP (A2P)	Light emitting diode (service monitor green)
H1P (A1P)	Light emitting diode (service monitor red)

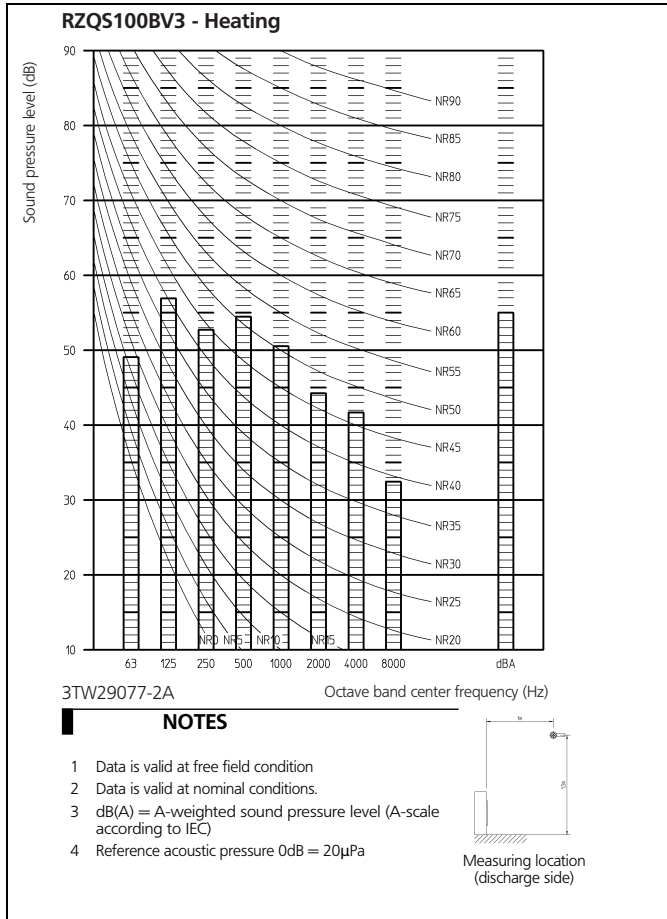
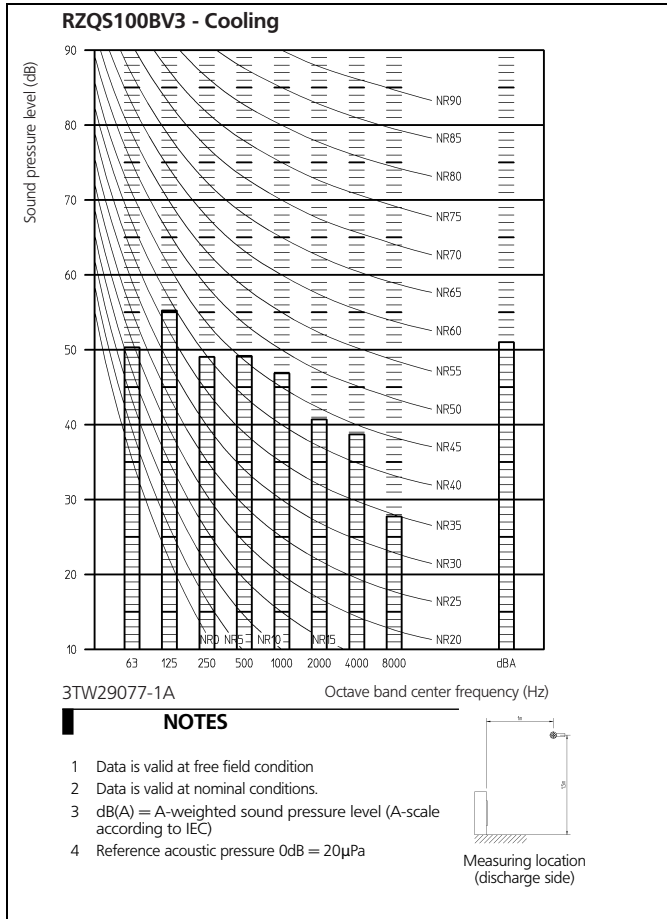
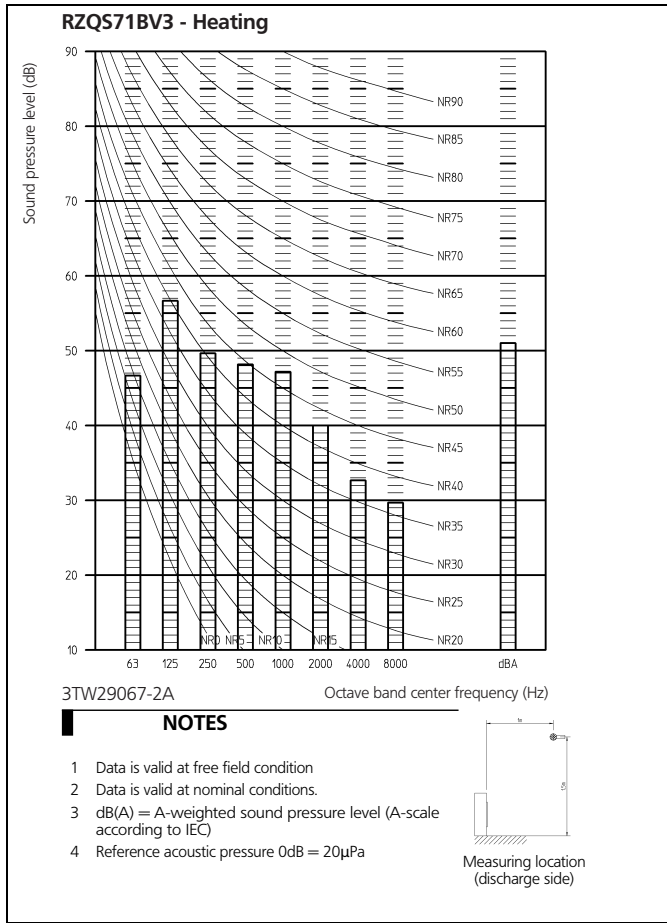
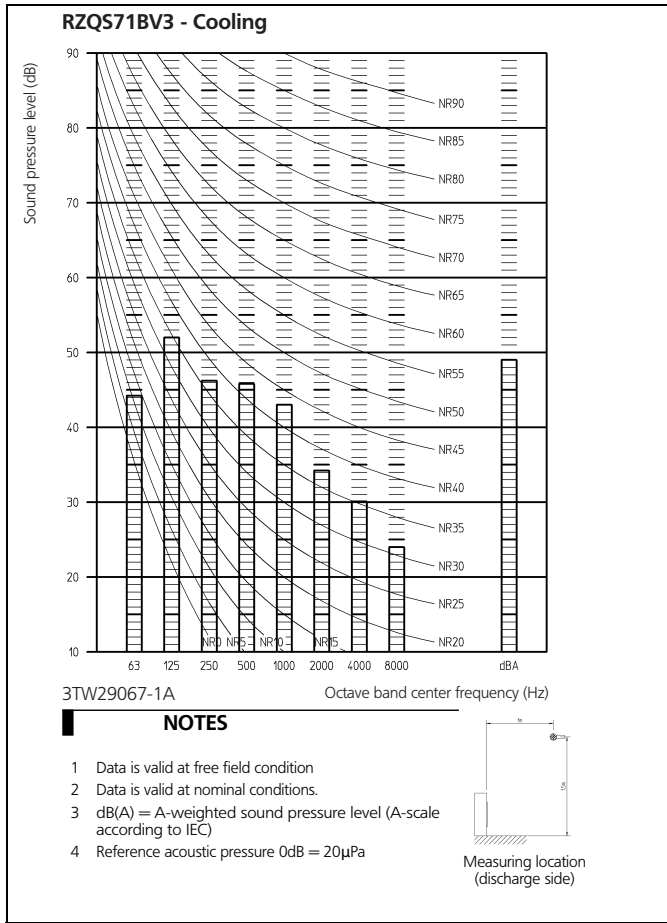
K1M(A2P)	Magnetic contactor
K1R(A1P)	Magnetic relay (Y1S)
K2R(A1P)	Magnetic relay (Y2S)
K2R(A2P)	Magnetic relay
L1R	Reactor
M1C	Motor compressor
M1F	Motor fan
PS	Power circuit
Q1D1	Earth leakage breaker (30mA)
R1-R2	Resistor
R1T	Thermistor (air)
R2T	Thermistor (coil)
R3T	Thermistor (discharge pipe)
R4T	Thermistor (suction pipe)
R5T	Thermistor (power module)
S1PH	Pressure switch (high)
S1NPL	Pressure sensor (low)
RC	Signal receiver circuit
TC	Signal transmission circuit
V1R	Power module

V2R-V3R	Diode module
V1T	IGBT
X6A	Connector (Option)
X1M	Terminal strip
Y1E	Expansion valve
Y1S	4-way valve
Y2S	Solenoid valve
Z1C, Z2C	Noise filter
Z3C, Z4C	Noise filter (with surge absorber)
Z1F	Noise filter (with surge absorber)

2TW26736-1B

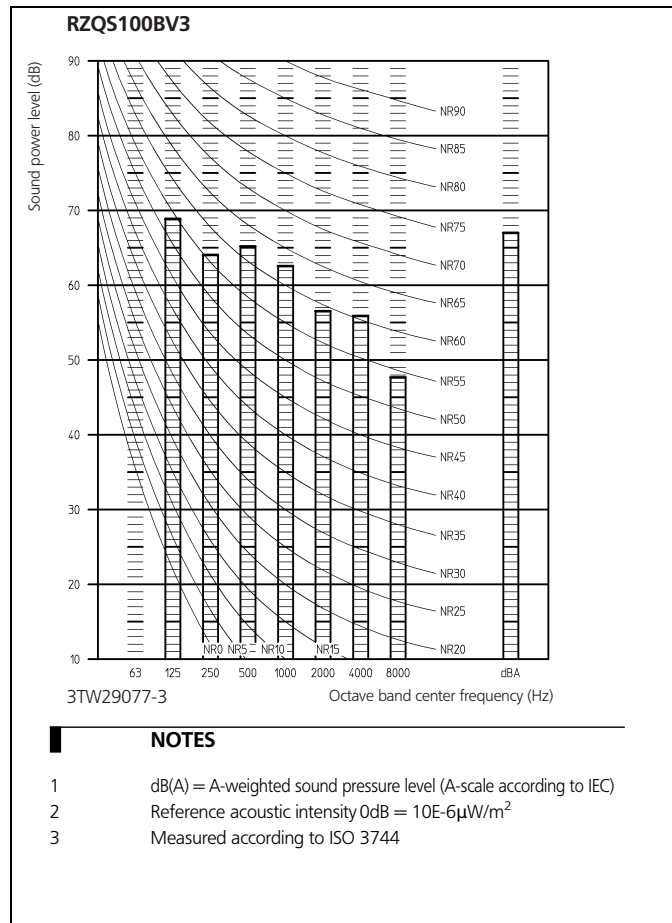
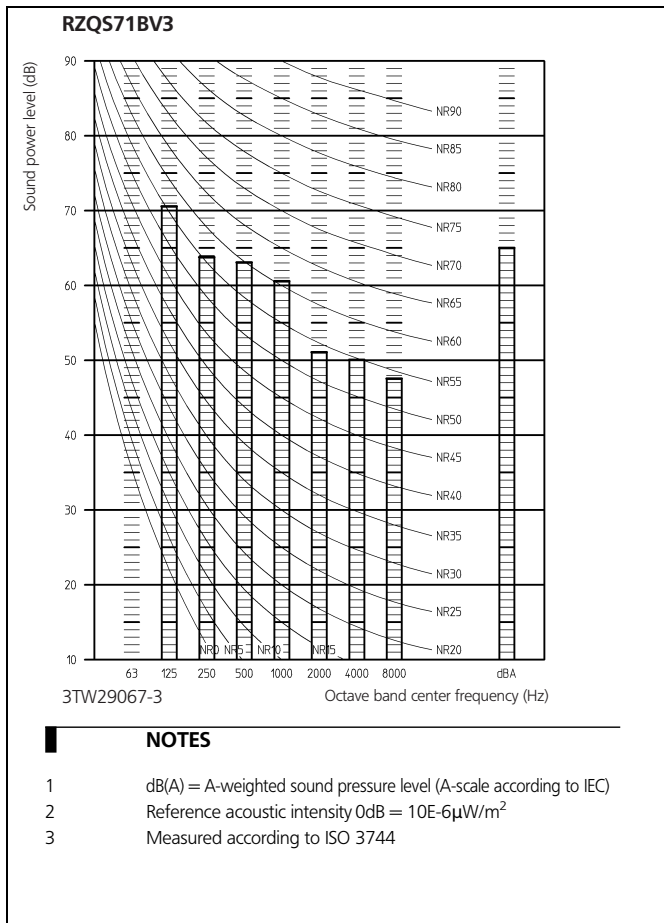
9 Sound data

9 - 1 Sound pressure spectrum



9 Sound data

9 - 2 Sound power spectrum



10 Installation

10 - 1 Installation method

RZQS71~ 100BV3

A. Non stacked installation

		↖	↗	↘	↙	↕	A	B1	B2	C	D1	D2	E	L1/L2	
	✓						≥50(100)								
	✓		✓	✓			≥100	≥100	≥100						
	✓				✓		≥100				≤500	≥1000			
	✓		✓	✓	✓		≥150	≥150	≥150		≤500	≥1000			
		✓									≥500				
	✓	✓			✓				≤500		≥500	≥1000			
							L1<L2	≥50(100)				≥500			
							L2<L1	≥50(100)				≥500			
	✓	✓					L1<L2	L1≤H	≥150(250)	≤500		≥1000	≥1000	0<L1≤1/2H	0<L1≤1/2H
							L2<L1	L2≤H	≥50(100)		≥500	≥500	≥1000	0<L2≤1/2H	1/2H<L2≤H
	✓		✓	✓			≥200	≥200(300)	≥1000						
	✓		✓	✓	✓		≥200	≥200(300)	≥1000			≤500	≥1000		
		✓									≥1000				
	✓	✓			✓				≤500		≥1000	≥1000			
							L1<L2	≥200(300)			≥1000			0<L1≤1/2H	
							L2<L1	≥150(250)			≥1000			1/2H<L2≤H	
							L1<L2	L1≤H	≥200(300)	≤500		≥1000	≥1000	0<L1≤1/2H	1/2H<L1≤H
							L2<L1	L2≤H	≥150(250)		≥1000	≤500	≥1000	0<L2≤1/2H	1/2H<L2≤H
							L1<L2	L1≤H	≥200(300)	≤500		≥1000	≥1000	0<L1≤1/2H	1/2H<L1≤H
							L2<L1	L2≤H	≥150(250)		≥1000	≤500	≥1000	0<L2≤1/2H	1/2H<L2≤H

Legend

- ↖ Suction side obstacle
- ↗ Discharge side obstacle
- ↘ Left side obstacle
- ↙ Right side obstacle
- ↕ Top side obstacle
- ✓ Obstacle is present

In these cases, close the bottom of the installation frame to prevent discharged air from being bypassed.

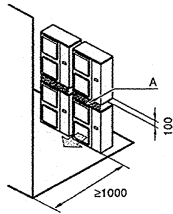
In these cases, only 2 units can be installed.

This situation is not allowed.

Figures between () indicate the dimensions only for the 100-125-140 class models.

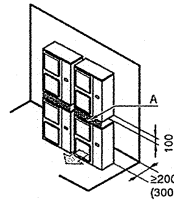
B. Stacked installation

1. Obstacles exist in front of the outlet side



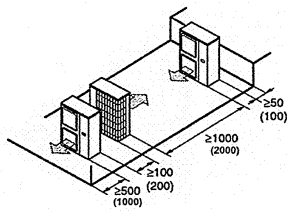
Do not stack more than one unit.
About 100mm is required as the dimension for laying the upper outdoor unit's drain pipe.
Get the portion A sealed so that air from the outlet does not bypass.

2. Obstacles exist in front of the air inlet

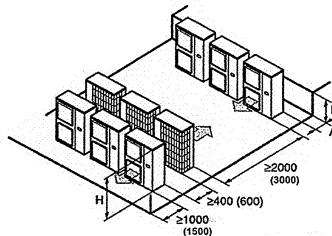


C. Multiple-row installation

1. Installation of one unit per row



2. Installing multiple units (2 units or more) in lateral connection per row



Relation of dimensions of H, A, and L are shown in the table below.

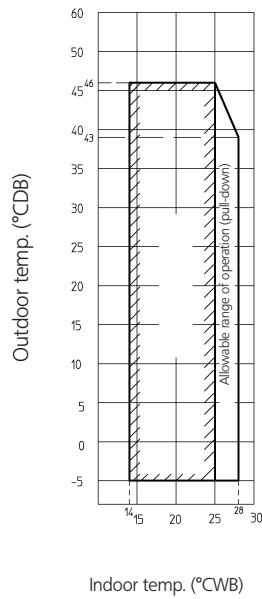
	L	A
L ≤ H	0 < L ≤ 1/2 H	150 (250)
	1/2 H < L	200 (300)
H < L	Installation impossible	

3TW26739-4

11 Operation range

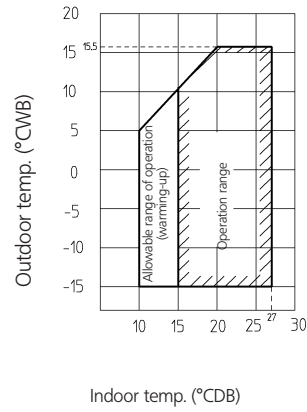
RZQS71-100BV3

Cooling



Model name
RZQ71B7V3
RZQS100B7V3

Heating



Notes:

- Depending on operation and installation conditions, the indoor unit can change over to freeze-up operation (indoor de-icing).
- To reduce the freeze-up operation (indoor de-icing) frequency, it is recommended to install the outdoor unit in a location not exposed to wind.

3TW29063-1B